

for SO 127739

Work Order ID 150892

150892

Page 1

Monday, September 12, 2016 8:50:42 AM

Item ID: 646.3313 - custom part Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Upper Guide
 Start Date: 9/12/2016 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 9/16/2016 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: DAS 21 Date: SEP 12 2016 Tooling: Date: Run Start *NR1*
 QC: 9-89 Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
646.3300	N/C3								

100

0.00

100

BAND SAW

Bandsaw

Memo

0.04

Jeaspa Bandsaw

Cut Blank at 13.500"

*** ONE BLANK MAKES TWO PARTS***

1 Ø DAS 20 1609-12
9-89

110

0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.58

HAAS CNC vertical machine #1

1-Machine per folio FB152

DWG REV: NEJFOLIO REV: NE

2- deburr and break all sharp edges

1 1609-14

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due	☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter	☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes	☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center	☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence
OTHER :					

Work Order ID 150892***150892***

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Monday, September 12, 2016 8:50:42 AM

Item ID: 646.3313

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Upper Guide

Start Date: 9/12/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 9/16/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging

Memo

0.00

Packaging

1X 8/16-9-22

155

QC5- Inspect part completeness to step on W/O

0.00

155

QC

Memo

0.00

Quality Control

DAS
38
9-89

1

SEP 22 2016

180

Identify as per dwg & Stock Location: _____

0.00

180

Packaging

Memo

0.00

Packaging

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

Ship

MF 16-9-22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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OTHER : ☐					

Work Order ID 150892***150892***

Page 4

Monday, September 12, 2016 8:50:42 AM

Item ID: 646.3313 Accept ***N1900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Upper Guide
Start Date: 9/12/2016 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 9/16/2016 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

ME
16-9-22

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Picklist Print

Monday, September 12, 2016 8:50:51 AM

Page 1

Work Order ID: 150892

150892

Parent Item: 646.3313

646 3313

Parent Item Name: Upper Guide

Start Date: 9/12/2016

Required Date: 9/16/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 12/11/14 JFS VERIFY BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B5.000X0.375		Purchased	No			100	f	19.9200	0.563	0.592632			
M7075T6B5 000X0 375									**	<u>1.138'</u>		DAS 20 9-89	16-09-12
7075-T6 BAR 5.000" X 0.375"													

Location

Loc Qty

Loc Code

MAT005

19.92

m134829

7.92

m135320

12

1.138'

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
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				Completed By	
				Lead hand / Supervisor Approval Verification	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

APICAL

INDUSTRIES, INC.

ENGINEERING CHANGE NOTICE NO.

04765

SHEET 1 OF 1

DWG NO. 646.3300

REV: NC

PREPARED BY

J. SOTO

DATE: 12/08/2014

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: UPPER CUTTER ASSY

APPROVED BY:

ENGR

MFG

QC

EFF.

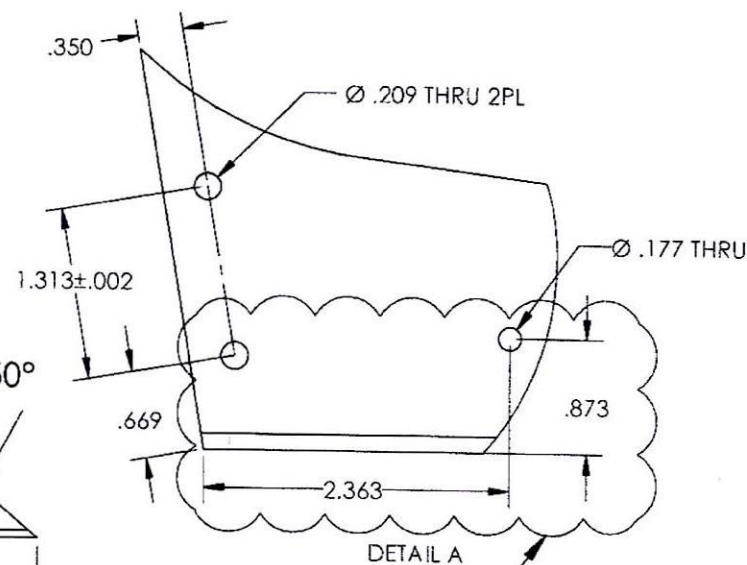
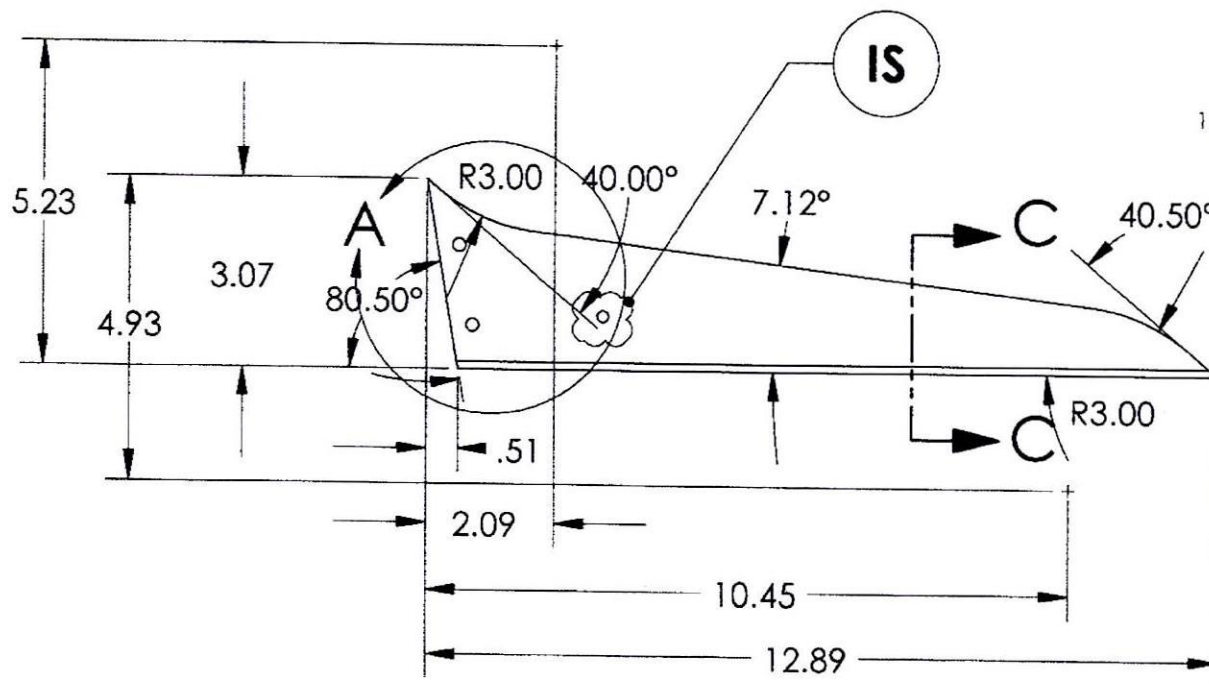
NEXT ORDER

TRANSACTION CODES (TC):
A-ADD
R-REVISE
C-CREATE
D-DELETE

REASON: ADDED HOLE DIMENSION TO 646.3313.

SHEET 5 IS:

RETURN
ENGINEERING
UNCONTROLLED
SUBJECT TO AMENDM
WITHOUT NOTICE
WORK ORDER
NO 150892 MJS
1609-12



DOCUMENTS EFFECTED:

☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM

CHANGE CATEGORY

☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED

☐ YES ☒ NO

DQA: _____ Date: _____



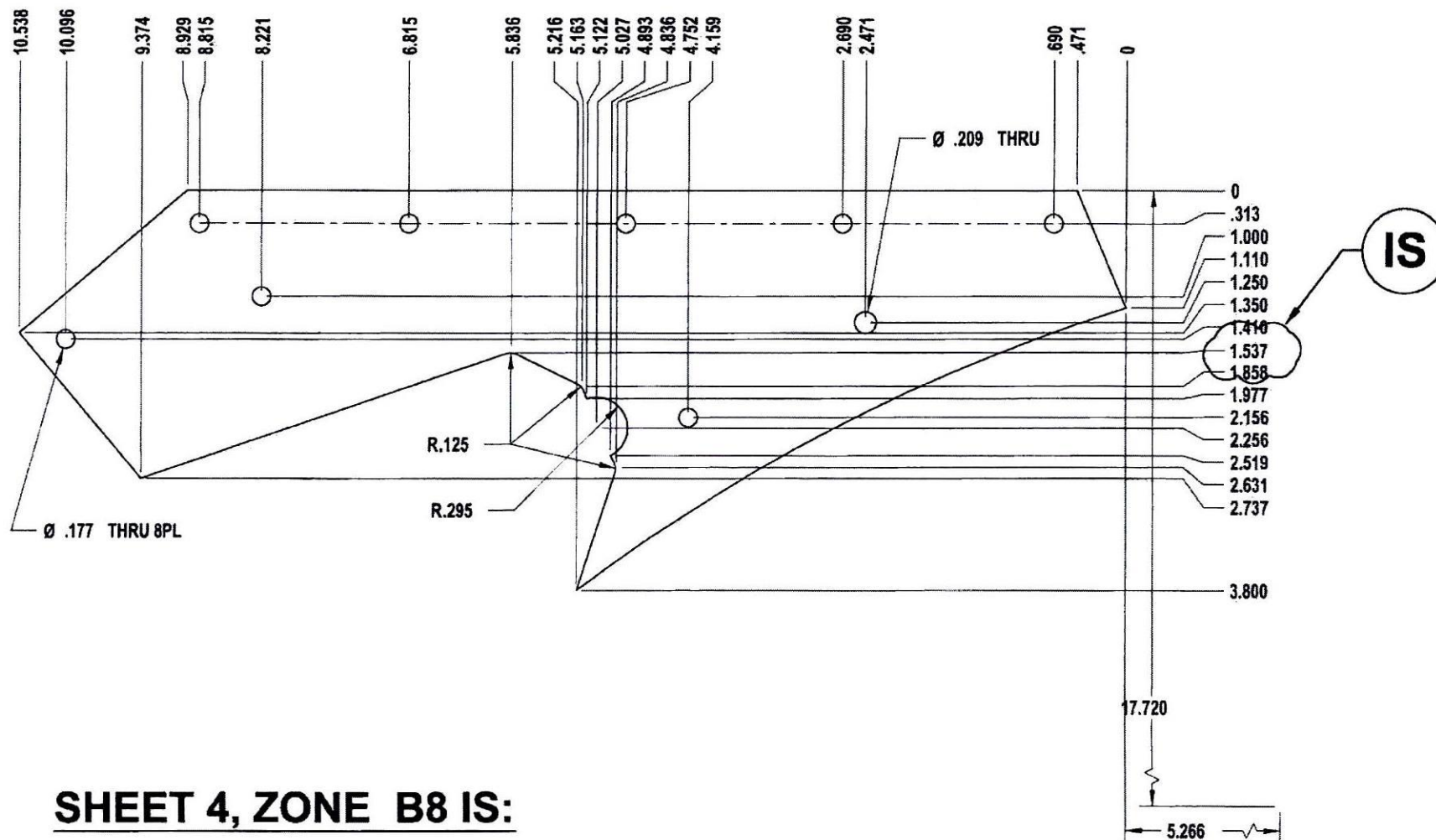
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 03724				SHEET 1 OF 1	
	DWG NO. 646.3300	REV: N/C	PREPARED BY B. PETERS	DATE: 12/05/12	EFFECT ON DWG ☐ INC. ☒ UNINC.	
	DWG TITLE: UPPER CUTTER ASSY					
	APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER		
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE	REASON: REVISED ORDINATE DIMENSION.				ECR: D-12-025	



SHEET 4, ZONE B8 IS:

DOCUMENTS EFFECTED:	☐ RFMS ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM	CHANGE CATEGORY ☐ MAJOR ☒ MINOR	DER REVIEW REQUIRED ☐ YES ☒ NO
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

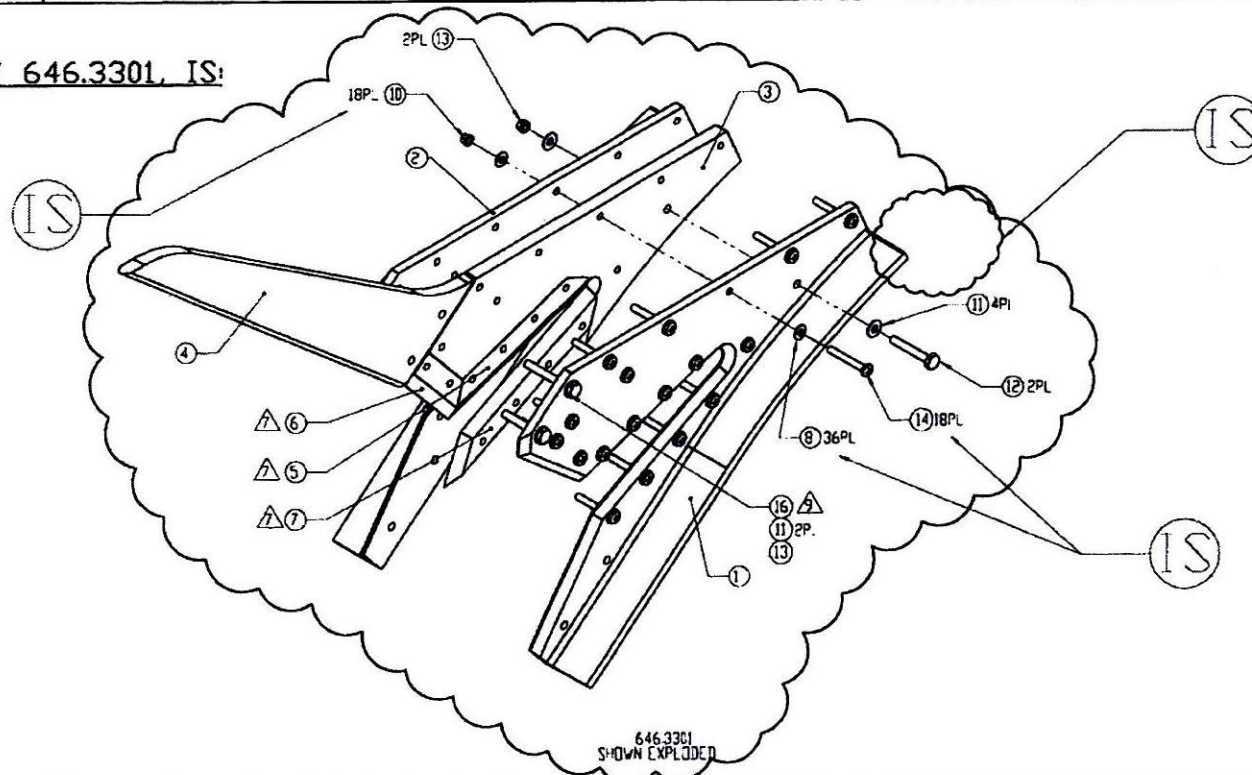
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
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LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

APICAL INDUSTRIES, INC.	ENGINEERING CHANGE NOTICE NO. 02196		SHEET 1 OF 2	
	DWG NO. 646.3300	REV: N/C	PREPARED BY S. HUFF	DATE: 01/05/09
	EFFECT ON DWG ☐ INC. ☒ UNINC.			
DWG TITLE: UPPER CUTTER ASSY				
APPROVED BY: ENGR <i>[Signature]</i>	MFG <i>[Signature]</i>	QC <i>[Signature]</i>	EFF: NEXT ORDER	
REASON: REMOVED RIVETS IN FAVOR OF ADDITIONAL SCREWS				
TRANSACTION CODES (TC): A-ADD C-CREATE R-REVISE D-DELETE				

SHEET 1, VIEW 646.3301, IS:



14	R	601.2765	18	SCREW	MS27039-0819
10	R	601.1541	18	LOCKNUT	MS21042L08
9	D	601.2766	3	RIVET	MS20470AD5-18
8	R	601.2764	36	WASHER	NAS1149FN832P
			.3301		
F/N TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION	
DOCUMENTS EFFECTED:				CHANGE CATEGORY	DER REVIEW REQUIRED
☐ MDL ☒ INSTALL INSTRU ☒ ICA ☐ FMS ☒ BOM				☐ MAJOR ☒ MINOR	☐ YES ☒ NO

DQA: _____ Date: _____



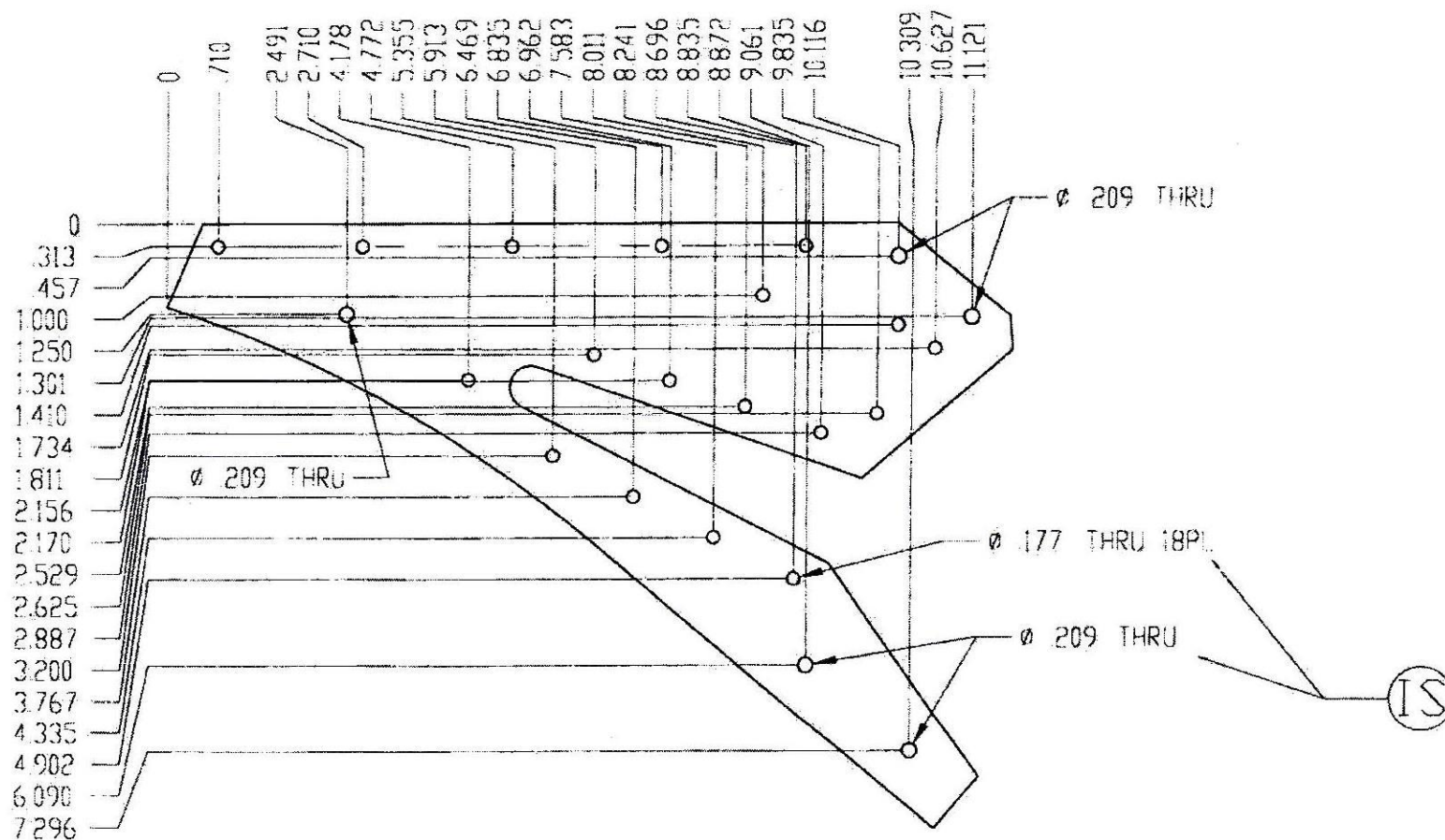
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																		
Description Work Order Deviation				Disposition																					
Root Cause		FAULT CATEGORY																							
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Design ☐		Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																			
Doc/Data ☐		Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																			
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Past Expiry Date ☐		Manufacturing Process ☐	OTHER :																						
Misidentified ☐		Past Due ☐																							

SHEET 3, SECTION VIEW A-A, IS:



F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION
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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

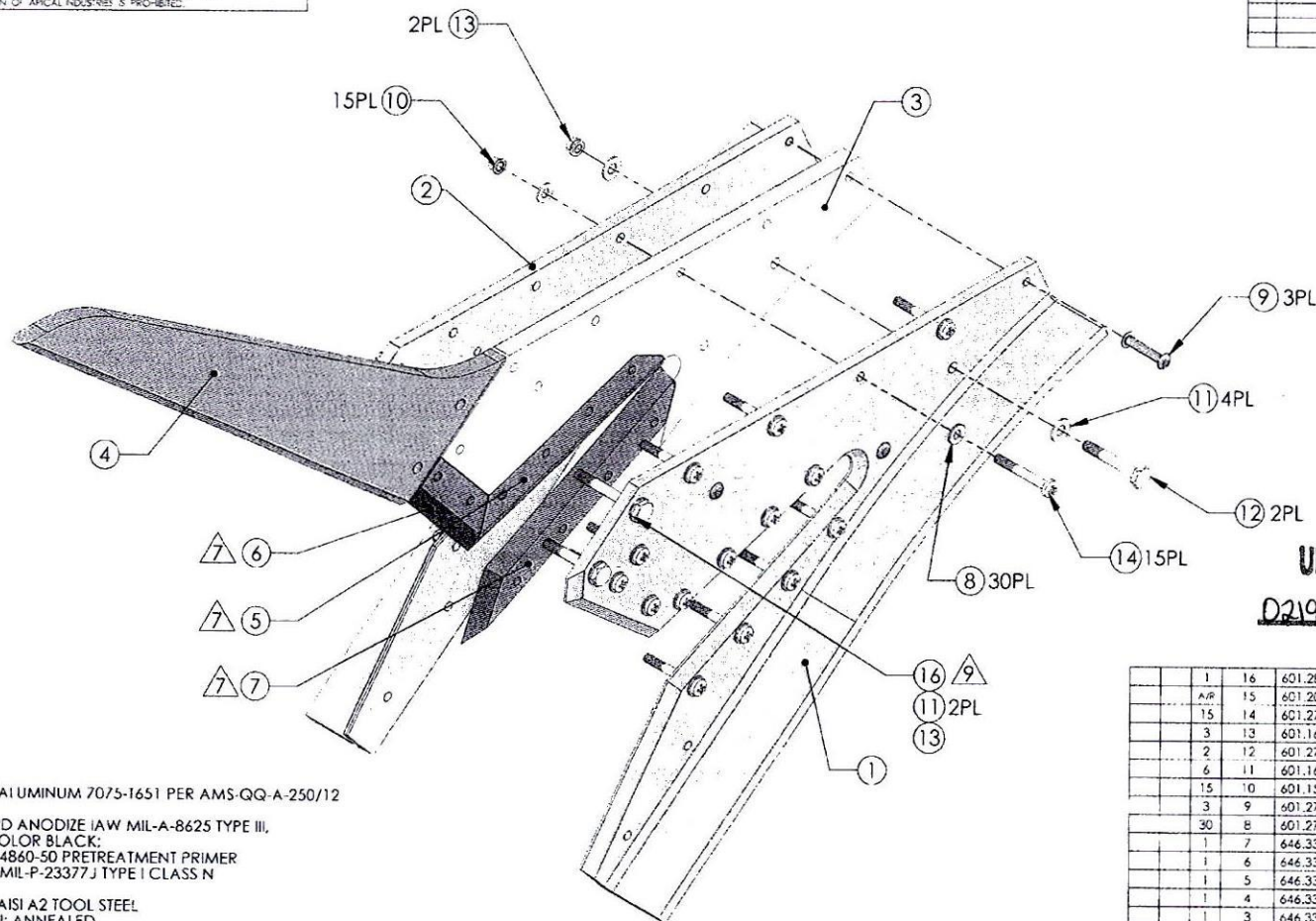
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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		OTHER : _____																							

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES AND REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



UNINCORPORATED ECN(S)

02196, 03724, 04765

NOTES:

- 1 MATERIAL: ALUMINUM 7075-16S1 PER AMS-QQ-A-250/12
- 2 FINISH: HARD ANODIZE IAW MIL-A-8625 TYPE III, CLASS 2, COLOR BLACK; CARDINAL 4860-50 PRETREATMENT PRIMER PRIME IAW MIL-P-23377J TYPE I CLASS N
- 3 MATERIAL: AISI A2 TOOL STEEL; CONDITION: ANNEALED; POST PROCESS: HEAT TREAT TO 58-62 Rc ROCKWELL HARDNESS
- 4 FINISH: PRIME IAW MIL-P-23377J TYPE I CLASS N
- 5 DEBURR AND BREAK ALL SHARP EDGES EXCEPT WHERE OTHERWISE NOTED
- 6 IDENTIFY IAW MPP-120
- 7 APPLY F/N 15 AS REQUIRED TO ALL FAYING SURFACES OF F/N 5, 6 & 7 UPON ASSEMBLY
- 8 CUTTING EDGE INTENDED TO BE SHARP, DO NOT BREAK SHARP EDGE
- 9 INSTALL FASTENER FINGER-TIGHT

646.3301
SHOWN EXPLODED

QTY	REV	FIG. #	PART #	DESCRIPTION	MATL	SPEC.
1	16	601.2834	BOLT	AN3-14A		
15	15	601.2045	RTV, LOCTITE 598			
15	14	601.2765	SCREW	M32703H-0814		
3	13	601.1624	LOCKNUT	M32703H-0813		
2	12	601.2763	BOLT	AN2-12A		
6	11	601.1607	WASHER	M32703H-0811		
15	10	601.1541	LOCKNUT	M32703H-0810		
3	9	601.2766	RIVET	M32703H-0809		
30	8	601.2764	WASHER	M32703H-0808		
1	7	646.3316	BLADE			
1	6	646.3315	BLADE			
1	5	646.3314	BLADE			
1	4	646.3313	UPPER GUIDE			
1	3	646.3312	CENTER PLATE			
1	2	646.3311	RH HALF			
1	1	646.3310	LH HALF			
1		646.3301	UPPER CUTTER ASSY			
PARTS LIST						
NEXT ASSY (S)				APICAL INDUSTRIES		
646.4000				2608 TEMPLE HEIGHTS DR.		
				OCEANSIDE, CA. 92056-3512 (760) 724-5300		
				UPPER CUTTER ASSY		
				646.3300		
				SCALE NONE		
				SHEET 1 OF 8		

DQA: _____ Date: _____



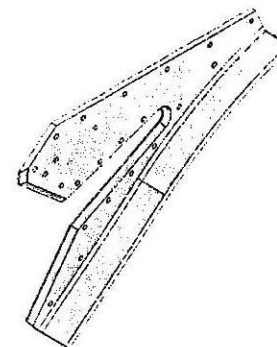
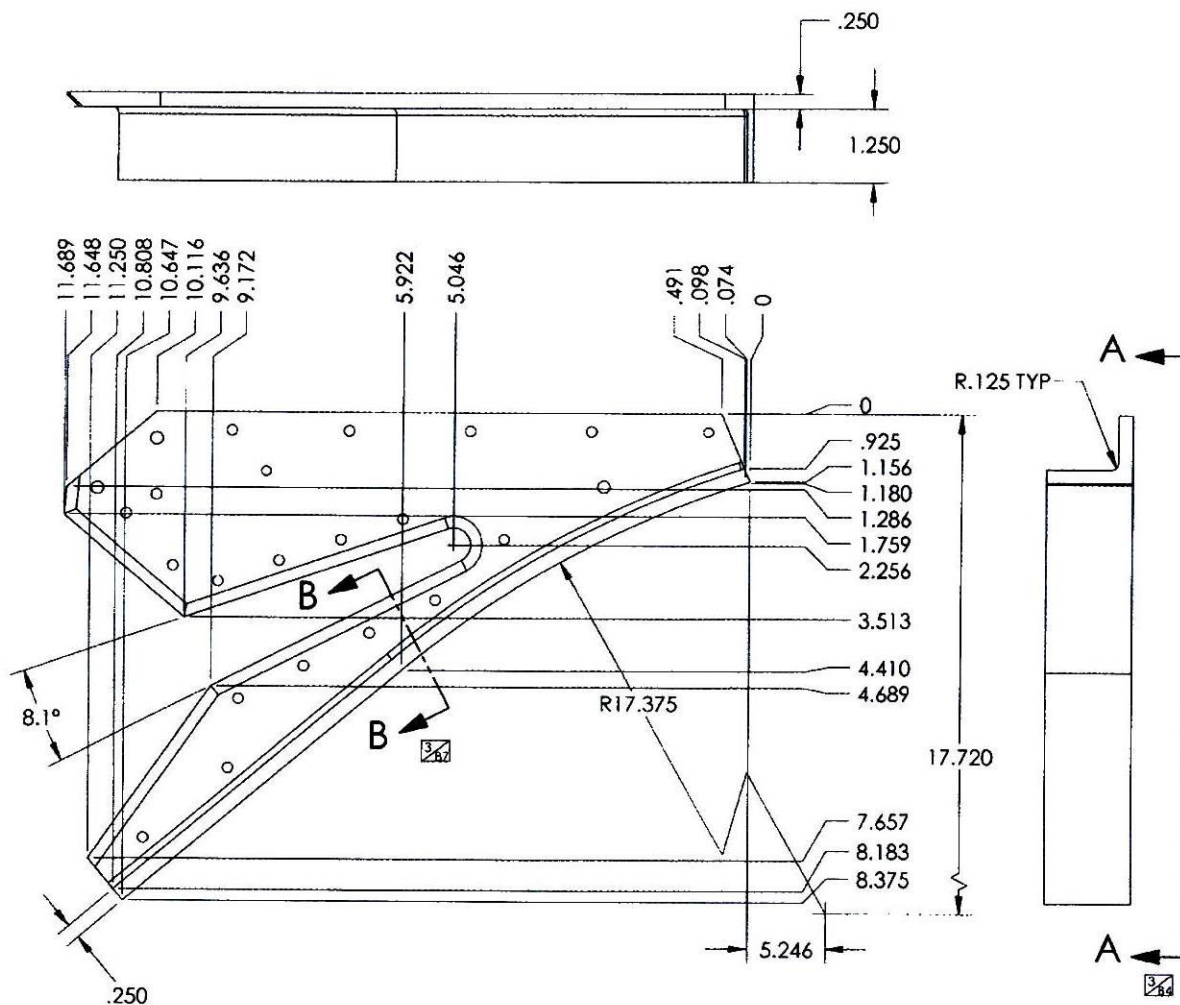
WORK ORDER NON-CONFORMANCE / UPDATE

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Description Work Order Deviation		Disposition																			
				Completed By																	
				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐																
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐																
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐																
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐																
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐																
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐																
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐																
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐																
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐																
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐																
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____																			
Misidentified ☐	Past Due ☐																				

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646.3310 SHOWN
646.3311 OPPOSITE

ORDER DATE: 08/24/08 ORDER BY: J. BRYAN DRAWING NO: 071426 CONTRACT NO: 646.3300		APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300	
J. BRYAN SPECIFIED DIMENSIONS ARE IN INCHES DECIMALS ARE .001 ANGLES ARE .1°		SCALE: NONE SHEET: 2 OF 8	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

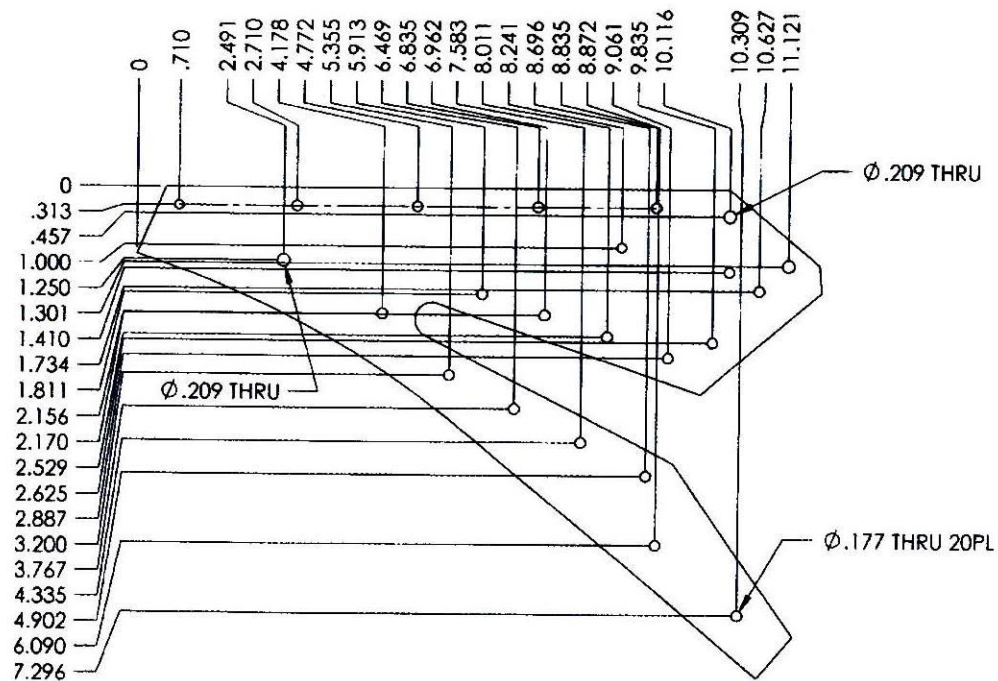
QA Closed: _____ Date: _____

Work Order update only ☐

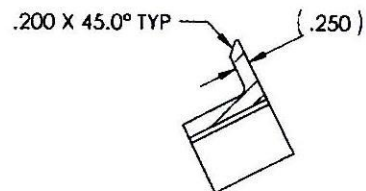
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval 	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY		
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

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SECTION A-A



SECTION B-B

ORIGINAL DATE REVISION DATE: 08-26-06		APICAL INDUSTRIES	
DRAWN BY: J. HART		2608 TEMPLE HICKS DR. OCEANSIDE, CA. 92056 3512 (760) 724-5300	
CHECKED BY: J. HART		UPPER CUTTER ASSY	
CONFIRMED BY:		SCALE: NONE	
ALL DIMENSIONS UNLESS OTHERWISE SPECIFIED ARE IN INCHES		SHEET 3 OF 8	
TOLERANCES ARE:		REV: N/C	
1 PLACE DECIMALS .05		646.3300	
2 PLACE DECIMALS .005		07/14/06	
3 PLACE DECIMALS .0005		DWG. NO.	
4 PLACE DECIMALS .0001		646.3300	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

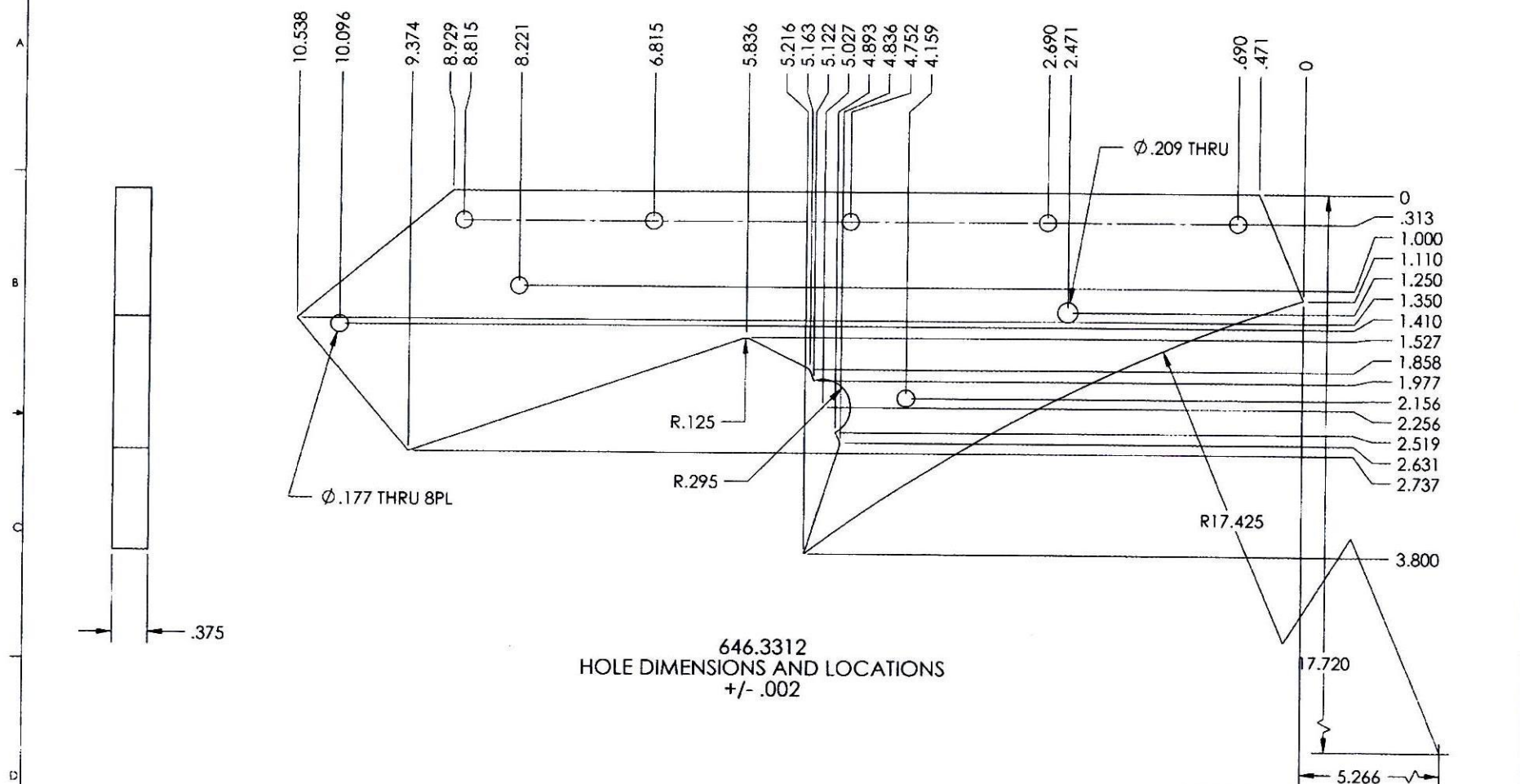
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



646.3312
HOLE DIMENSIONS AND LOCATIONS
+/- .002

ORIGINAL DATE: 08-21-08		APICAL INDUSTRIES	
DRAWN BY: J. WOOTER		2608 TEMPLE HEIGHTS DR.	
CHECKED BY: P. BRAYC		OCEANSIDE, CA. 92056-3512 (760)724-5300	
DESIGNING APPROVAL:		UPPER CUTTER ASSY	
DRAWING NO. 646.3300		SCALE: NONE	
SHEET 4 OF 8		REV: N/C	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

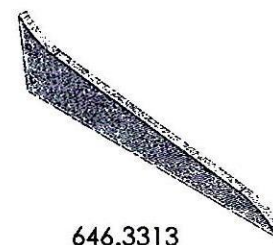
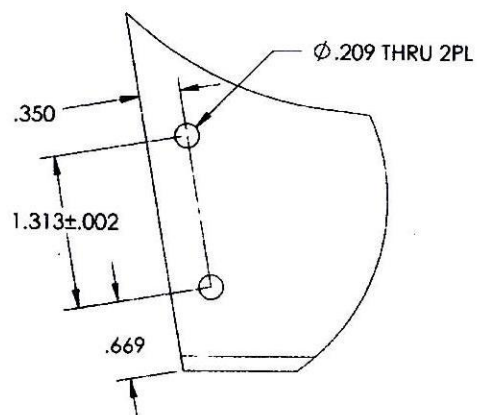
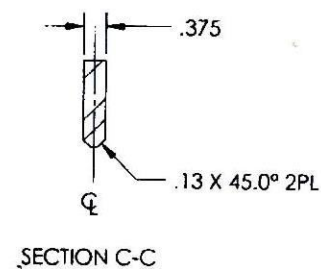
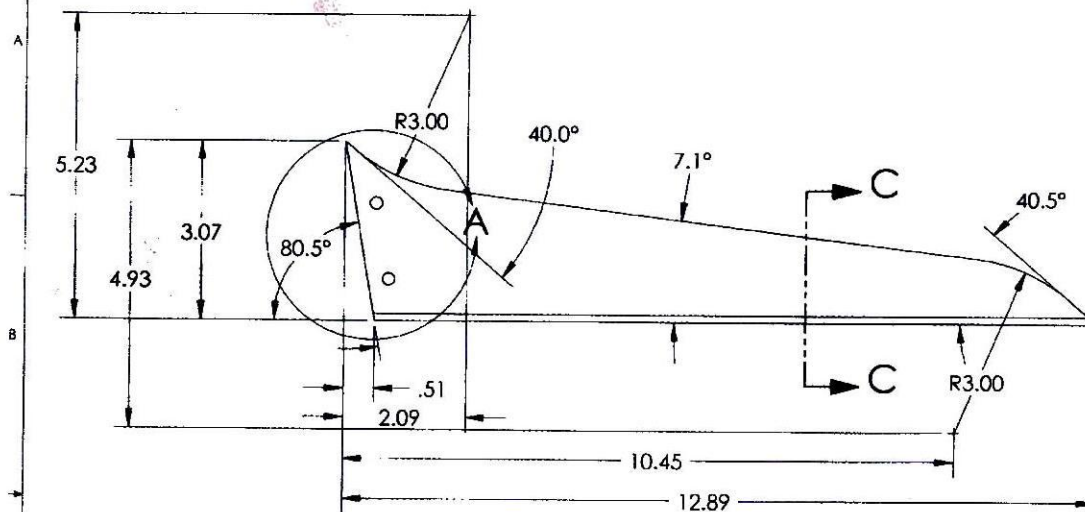
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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OTHER :																																																																									

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

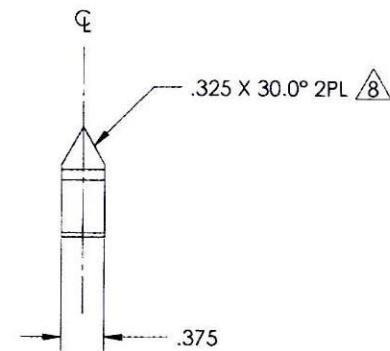
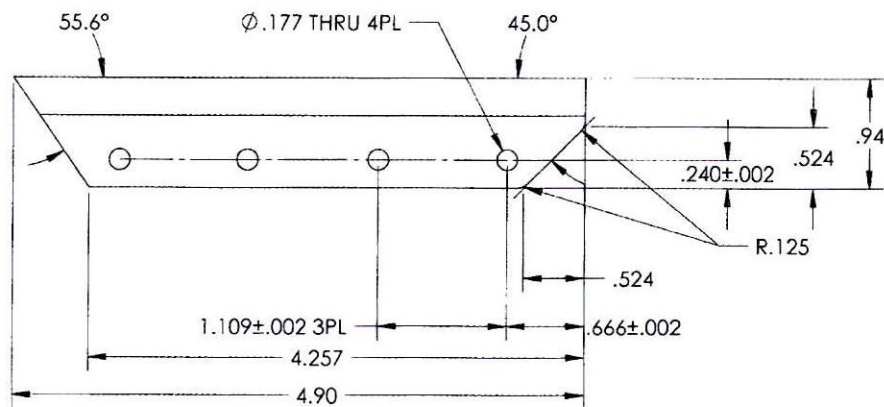
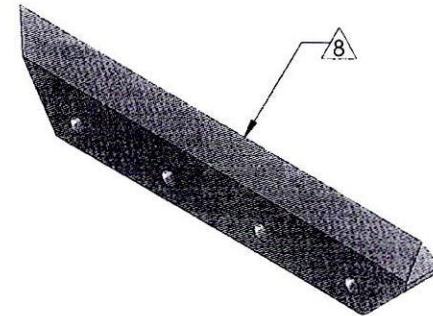


DETAIL A

ORIGINAL DATE UNO (A-15)		DESIGNER CHECKED	
DRAWN BY S. HOFF		BY S. HOFF	
DRAWING APPROVED			
P. BRAND			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMAL: ±.01 1 PLACE DECIMAL: ±.005 FRACTIONS: ±.001		REV. CODE B	DATE 07/26/06
APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		PART NO. 646.3300	
SCALE: NONE		SHEET 5 OF 6	

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REVISED			
REV	DESCRIPTION	DATE	APPROVED

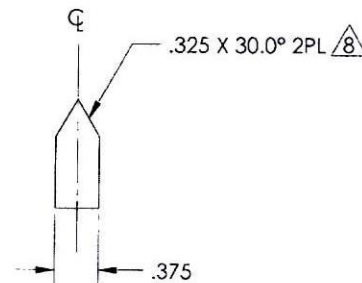
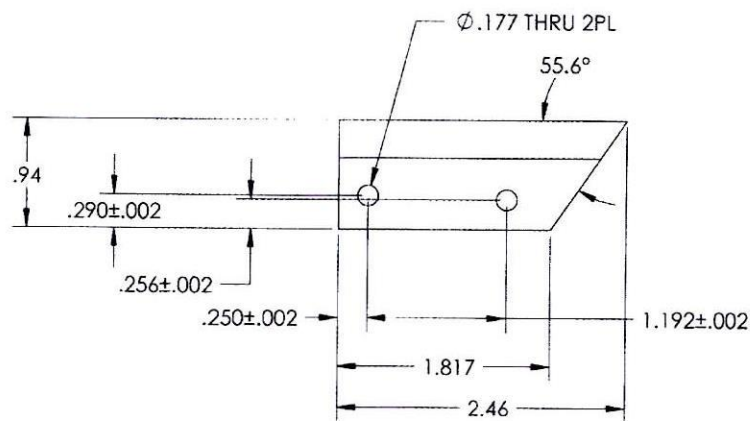
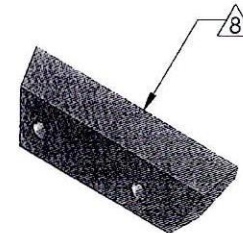


646.3314

ORIGINAL DATE 1/10/01 DA-187 187 BY SP-3 C-HUB P-BAYO DRAWING APPROVED P-BAYO 6/1/01 CONTRACT NO.	APICAL INDUSTRIES 2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA 92056-3512 (760)724-5300 UPPER CUTTER ASSY ALL DIMENSIONS SPECIFIED UNLESS NOTED ARE IN INCHES DIMENSIONS ARE: 1 PLACE DIMENSIONAL 2 PLACE DIMENSIONAL 3 DECIMALS REV N/C
	DET CHG CODE LONG NO B D7M26 SCALE NONE 646.3300 SHEET 6 OF 8

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED



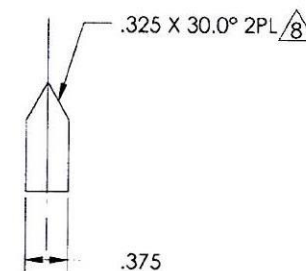
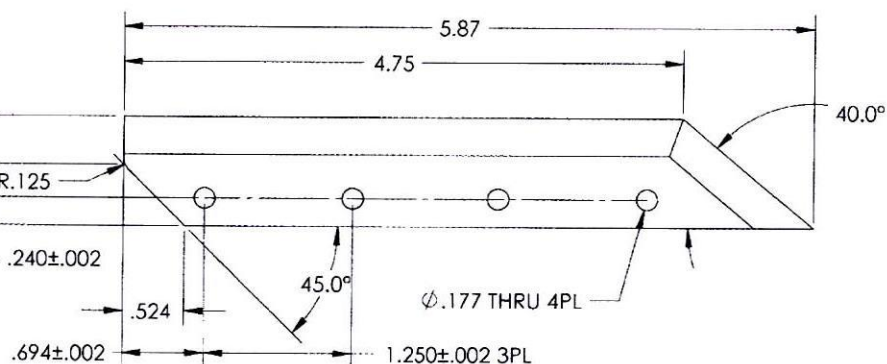
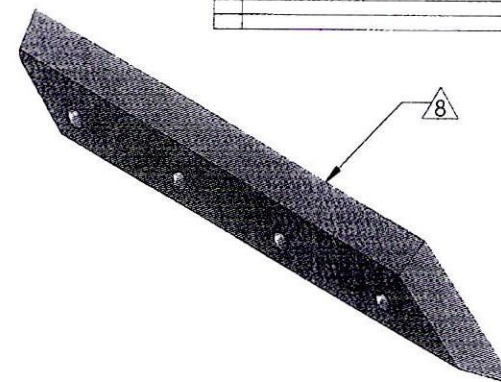
646.3315

ORIGINAL DATE 1/20/24-1/24	APICAL INDUSTRIES		
DRAWN BY S. HOFF	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760) 724-5300		
CHECKED BY P. BRAVO			
DRAWING APPROVAL P. BRAVO			
REVISION 0			
CONTRACT NO.			
UPPER CUTTER ASSY			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°	REV B	CAGE CODE 07ME6	QTY 646.3300
	SCALE NONE		REV N/C
	SHEET		7 OF 8

SHEET 7 OF 8

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REV.	DESCRIPTION	DATE	APPROVED



646.3316

ORIGINAL DATE JUN 04 1998	APICAL INDUSTRIES
DRAWN BY S. HUNT	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300
CHECKED BY P. BRAY	UPPER CUTTER ASSY
DRAWING APPROVED P. BRAY	646.3300
CONTRACT NO.	SCALE: NONE
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 1 PLACE DECIMALS ±.01 2 PLACE DECIMALS ±.005 3 PLACE DECIMALS ±.0005 ANGLES ±.5°	SHEET 8 OF 8

Jean Francois Sauve

From: Sian Willems
Sent: September-12-16 8:28 AM
To: Support Hawkesbury; Jean Francois Sauve
Cc: Lisa Mansfield; Jacob Becker; Meyer, Matt; Papenfus, Ryan
Subject: RE: URGENT: Cable Cutter Kit Hardware and Parts Issues
Attachments: Invoice Reprint.pdf

Hi,

We can use the original PO number.

Qty. 1 646.3313 (upper hole undrilled)

Qty. 4 MS270-39-1-17

Qty. 4 MS270-39-1-18

JSF
10/09/12

Jen, can you please do the no charge?

JF, the hole we are removing is the one added on ECN 04765.

Thanks,

SIAN WILLEMS

Customer Support Manager

DART AEROSPACE

T +1-613-632-3336 > 239

M +1-613-676-0577

F +1-613-632-5146

+1-800-556-4166

www.dartaerospace.com

From: Meyer, Matt [mailto:matt.meyer.external@airbus.com]

Sent: Sunday, September 11, 2016 5:51 PM

To: Lisa McMachen <lmcmachen@dartaero.com>; Papenfus, Ryan <ryan.papenfus@airbus.com>

Cc: Lisa Mansfield <lmansfield@dartaero.com>; Sian Willems <swillems@dartaero.com>; Jesus Vargas <jvargas@dartaero.com>; De Lautour, Grant <grant.delautour@airbus.com>; Technical Representative (Airbus Group AP) <techrep.airbusgroupap@airbus.com>; Hiranmanek, Khush <khushrav.hiranmanek@airbus.com>; Jacob Becker <JBecker@dartaero.com>

Subject: RE: URGENT: Cable Cutter Kit Hardware and Parts Issues

Hi Lisa,

Yip this is the part we need and yes you are correct, please send one without a hole in it. This item should be supplied free of charge. Im not sure how you proceed with purchase orders ect, as long as it isn't charged to us we are good. Please note there is also an assortment of screws to be supplied with this consignment also. You are good to go on these aswell?

Good day.

Matt Meyer

From: Lisa McMachen [<mailto:lmcmachen@dartaero.com>]

Sent: Saturday, September 10, 2016 1:18 AM

To: Meyer, Matt; Papenfus, Ryan

Cc: Lisa Mansfield; Sian Willems; Jesus Vargas; De Lautour, Grant; Technical Representative (Airbus Group AP); Hiranmanek, Khush; Jacob Becker

Subject: RE: URGENT: Cable Cutter Kit Hardware and Parts Issues

Importance: High

Hi Matt,

As Jacob is gone on vacation now, can you advise if you would like to receive the upper cutter P/N 646.3313 without the hole drilled? Please note: the max lead time on this part is 3 weeks.

In addition to this, do you require a no charge purchase order for this shipment or can we use the original purchase order?

Once you advise this I can get the order in the system.

Thanks,

Lisa McMachen

Customer Support

DART AEROSPACE

T 1 613 632-5200 > 241

M 1 613-632-5200

F 1 613 632 5146

1 800 556- 4166

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From: Meyer, Matt [<mailto:matt.meyer.external@airbus.com>]

Sent: Thursday, September 08, 2016 6:28 PM

To: Jacob Becker <JBecker@dartaero.com>; Papenfus, Ryan <ryan.papenfus@airbus.com>

Cc: Lisa Mansfield <lmansfield@dartaero.com>; Sian Willems <swillems@dartaero.com>; Jesus Vargas <jvargas@dartaero.com>; De Lautour, Grant <grant.delautour@airbus.com>; Technical Representative (Airbus Group AP) <techrep.airbusgroupap@airbus.com>; Hiranmanek, Khush <khushrav.hiranmanek@airbus.com>; Lisa McMachen <lmcmachen@dartaero.com>

Subject: RE: URGENT: Cable Cutter Kit Hardware and Parts Issues

Ok. I have spoken to Grant. We are happy for you to sent all these parts together as soon as you can please.

Here is the shipping address.

Airbus Helicopters NZ
720 Harvard Lane
Ardmore Airport 2528
Auckland
New Zealand

Also thank you for the NTO supplied.

Matt

From: Jacob Becker [<mailto:JBecker@dartaero.com>]

Sent: Friday, September 09, 2016 7:30 AM

To: Papenfus, Ryan

Cc: Lisa Mansfield; Sian Willems; Jesus Vargas; Meyer, Matt; De Lautour, Grant; Technical Representative (Airbus Group AP); Hiranmanek, Khush; Lisa McMachen

Subject: RE: URGENT: Cable Cutter Kit Hardware and Parts Issues

Hi Ryan,

We will provide the extra screws per your request.

I think the quickest solution to your issue with the upper cutter blade would be to provide just the upper cutter P/N 646.3313 without the hole drilled. Our max lead time on that is 3 weeks, but we should be able to get you one sooner. If we go this route, would you like to have the hardware sent ahead of the cutter, or delayed to be sent at the same time?

Regarding the fitment of the upper cutter assembly, it is fine to shim the cutter base to take up the gap present. Please see the NTO attached.

I am also taking off for vacation this evening (returning Monday), but I have issued a request for the upper cutter replacement and the screws in case you approve that option. Sian Willems or Lisa McMachen will follow up with the order. If not, we will revise accordingly.

Regards,

JACOB BECKER

Technical Support/Project Engineering

DART AEROSPACE

T 1 760 509-1639

F 1 760 758-9612

1-800-566-4166

From: Papenfus, Ryan [<mailto:ryan.papenfus@airbus.com>]

Sent: Tuesday, September 06, 2016 6:30 PM

To: Jacob Becker <JBecker@dartaero.com>

Cc: Lisa Mansfield <lmansfield@dartaero.com>; Sian Willems <swillems@dartaero.com>; Jesus Vargas

<jvargas@dartaero.com>; Meyer, Matt <matt.meyer.external@airbus.com>; De Lautour, Grant

<grant.delautour@airbus.com>; Technical Representative (Airbus Group AP) <techrep.airbusgroupap@airbus.com>;

Hiranmanek, Khush <khushrav.hiranmanek@airbus.com>

Subject: URGENT: Cable Cutter Kit Hardware and Parts Issues

Hi Jacob,

We are currently installing a DART Cable Cutter Kit P/N: 646.4001, B/N: B148298 on an AS350B3e, S/N: 8206. We have found a couple of problems during the installation.

First Issue:

We need Qty.4 longer screws to finish the install of the wire strike kit. See area where longer screws are required(See Attachment IMG 2160.jpg)

I would like to get a couple of different lengths to try and save time. If we could get Qty.4 of these each please as this will ensure we have covered all the bases.

They are as follows:

The P/N's are - MS270-39-1-17, Qty.4 AND MS270-39-1-18, Qty.4

Second Issue:

We are having a few issues with fitting the Upper Cutter Assembly.

The first issue is that once the cutter is position so that the contour of the roof is optimised against the cutter profile/arc and dimension iaw DART installation instructions, there is a gap under the cutter which would need to be shimmed(See attachment **IMG 20160907 112016.jpg**). This problem of the Upper Cutter profile not matching the cabin profile may be coming from the fact that the new AS350's being produced only have a metal(aluminium) roof, not a composite roof as in years past. Something to consider. As indicated the Upper Cutter distances are iaw the installation instructions(See Attachment **IMG 2151.jpg**). To take up the gap between the Upper Cutter and the Windscreen, our suggestion is to manufacture an aluminium shim that would taper from the top of the gap to the bottom. We would need some approved data from your side to do this as this is not in the documentation.

The second issue is the pre drilled hole in the upper cutter "Blade"(See attachment **IMG 2150.jpg**). This pre drilled hole was not present in the previous kit we installed on an AS350B3e. As this aircraft already has pre drilled holes in the cabin roof, the setup of the adjustable rods/struts holding the upper cutter blade have a preset start point(See attachment **IMG 2151.jpg**). Once you try and adjust the rod ends to match the pre drilled hole in the upper cutter blade, the rod ends turn too far out and are no longer in safety(See attachment **IMG 2148.jpg**). My only suggestion for this is to supply another Upper Cutter Blade without a pre drilled hole.

I look forward to your urgent reply on these pressing matters.

Kind Regards

Ryan Papenfus

Technical Representative
Civil Helicopters - NZ

Airbus Group Australia Pacific

Harvard lane, Ardmore Airport
New Zealand, Auckland 2244
T: +64 9 295 1142



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912285

Date: 22-Sep-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

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Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
1 ea	Part: 646.3313	Rev:	
	Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20137	PO: PO33672	Line: 1
6 ea	Part: D4824-1	Rev:	
	Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20138	PO: PO33672	Line: 2
6 ea	Part: 647.0116	Rev:	
	Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20139	PO: PO33672	Line: 3
5 ea	Part: 647.2113	Rev:	
	Hard Anodize, Type III, Class 2 (MIL-A-8625) Primer, MIL-P-23377J, TYPE 1, CLASS N Job: 20140	PO: PO33672	Line: 4
6 ea	Part: D4838-2	Rev:	
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1	Part: ADMINISTRATION FEE	Rev: N/A	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO33672

Purchase Order Date 9/15/2016

PO Print Date 9/22/2016

Page Number 1 of 4

Order From :

VC-ATG001

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CANADA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Linda Lacelle

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments			Promise Date				
Delivery Comments							

150892

646.3313 UPPER GUIDE
REV. N/C

9/23/2016

Yes

9/23/2016

1.00

\$13.10

\$13.10

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$13.10

2 144609

D4824-1 UPPER
CUTTER REV. A

9/23/2016

Yes

9/23/2016

6.00

\$13.40

\$80.40

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total:

\$80.40

Note:

9/22/2016